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(54) MONITORING DEVICE FOR OPTICAL WAVELENGTH MULTIPLEX COMMUNICATION LINE

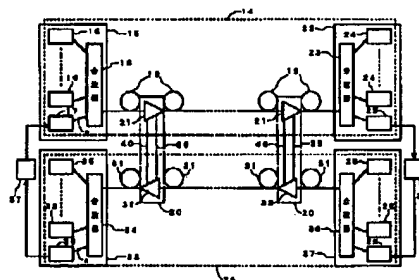
(57) Abstract:

PURPOSE: To provide a monitoring device capable of effectively monitoring an optical amplifier repeater in an optical wavelength multiplex communication line.

CONSTITUTION: A signal light and a monitor optical signal (a) outputted from an optical transmitter 16 and a monitor signal optical transmitter 17 are subject to optical wavelength multiplexing by a multiplexer 18 and the resulting signal is sent to a transmission optical fiber 19. An optical amplifier repeater 20 is provided with an optical amplifier 21 and a reflection circuit 39 and part of the signal subject to optical wavelength multiplexing is given to a transmission optical fiber 31 being an outgoing transmission line through the reflection circuit 39. A demultiplexer 34 demulti-

plexes the monitor optical signal (a) and delivers the result to a monitor signal optical receiver 36. In this invention, since the exclusive monitor optical signal (a) is used, the S/N in the monitor signal optical receiver 36 is excellent and each optical amplifier repeater is effectively monitored. The frequency of the monitor optical signal (a) is properly set outside the gain band of the optical amplifier repeater.

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